

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/499,468

DATE: 03/16/2001
TIME: 15:36:20

Input Set : D:\PF112U1.txt
Output Set: N:\CRF3\03162001\I499468.raw

ENTERED

50

98

146

194

242

290

RECEIVED
MAR 23 2001
TECH CENTER 1600/2900

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69	55		60		65		70	
71	aga	gaa	cag	gcc	aac	ctc	aac	tca
72	Arg	Glu	Gln	Ala	Asn	Leu	Asn	Ser
73								
75	gct	gca	gca	cat	tat	aat	aca	gag
76	Ala	Ala	Ala	His	Tyr	Asn	Thr	Glu
77								
79	tgg	aga	aag	act	caa	tgc	atg	cca
80	Trp	Arg	Lys	Thr	Gln	Cys	Met	Pro
81								
83	aag	gag	ttt	gga	gtc	gcg	aca	aac
84	Lys	Glu	Phe	Gly	Val	Ala	Thr	Asn
85								
87	tcc	gtc	tac	aga	tgt	ggg	ggt	tgc
88	Ser	Val	Tyr	Arg	Cys	Gly	Gly	Cys
89	135							
91	atg	aac	acc	agc	acg	agc	tac	ctc
92	Met	Asn	Thr	Ser	Thr	Ser	Tyr	Leu
93								
95	gtg	cct	ctc	tct	caa	ggc	ccc	aaa
96	Val	Pro	Leu	Ser	Gln	Gly	Pro	Lys
97								
99	cac	act	tcc	tgc	cga	tgc	atg	tct
100	His	Thr	Ser	Cys	Arg	Cys	Met	Ser
101								
103	cat	tcc	att	att	aga	cgt	tcc	ctg
104	His	Ser	Ile	Ile	Arg	Arg	Ser	Leu
105								
107	gca	gcg	aac	aag	acc	tgc	ccc	acc
108	Ala	Ala	Asn	Lys	Thr	Cys	Pro	Thr
109	215							
111	tgc	aga	tgc	ctg	gct	cag	gaa	gat
112	Cys	Arg	Cys	Leu	Ala	Gln	Glu	Asp
113								
115	gat	gac	tca	aca	gat	gga	ttc	cat
116	Asp	Asp	Ser	Thr	Asp	Gly	Phe	His
117								
119	ctg	gat	gaa	gag	acc	tgt	cag	tgt
120	Leu	Asp	Glu	Glu	Thr	Cys	Gln	Cys
121								
123	gcc	agc	tgt	gga	ccc	cac	aaa	gaa
124	Ala	Ser	Cys	Gly	Pro	His	Lys	Glu
125								
127	gtc	tgt	aaa	aac	aaa	ctc	ttc	ccc
128	Val	Cys	Lys	Asn	Lys	Leu	Phe	Pro
129	295							
131	ttt	gat	gaa	aac	aca	tgc	cag	tgt
132	Phe	Asp	Glu	Asn	Thr	Cys	Gln	Cys
133								

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```

135 aat caa ccc cta aat cct gga aaa tgt gcc tgt gaa tgt aca gaa agt      1106
136 Asn Gln Pro Leu Asn Pro Gly Lys Cys Ala Cys Glu Cys Thr Glu Ser
137          330          335          340
139 cca cag aaa tgc ttg tta aaa gga aag aag ttc cac cac caa aca tgc      1154
140 Pro Gln Lys Cys Leu Leu Lys Gly Lys Lys Phe His His Gln Thr Cys
141          345          350          355
143 agc tgt tac aga cgg cca tgt acg aac cgc cag aag gct tgt gag cca      1202
144 Ser Cys Tyr Arg Arg Pro Cys Thr Asn Arg Gln Lys Ala Cys Glu Pro
145          360          365          370
147 gga ttt tca tat agt gaa gaa gtg tgt cgt tgt gtc cct tca tat tgg      1250
148 Gly Phe Ser Tyr Ser Glu Glu Val Cys Arg Cys Val Pro Ser Tyr Trp
149 375          380          385          390
151 caa aga cca caa atg agc taagattgta ctgttttcca gttcatcgat      1298
152 Gln Arg Pro Gln Met Ser
153          395
155 tttctattat ggaaaactgt gttgccacag tagaactgtc tgtgaacaga gagacccttg      1358
157 tgggtccatg ctaacaaaga caaaagtctg tctttcctga accatgtgga taactttaca      1418
159 gaaatggact ggagctcatc tgcaaaaggc ctcttgtaaa gactggtttt ctgccaatga      1478
161 ccaaacagcc aagattttcc tcttgtgatt tctttaaaag aatgactata taatttattt      1538
163 ccaactaaaaa tattgtttct gcattcatit ttatagcaac aacaattggg aaaactcact      1598
165 gtgatcaata tttttatatt atgcaaaaata tgtttaaaat aaaatgaaaa ttgtatttat      1658
167 aaaaaaaaaa aaaaaa      1674
170 <210> SEQ ID NO: 2
171 <211> LENGTH: 419
172 <212> TYPE: PRT
173 <213> ORGANISM: homo sapiens
175 <400> SEQUENCE: 2
177 Met His Ser Leu Gly Phe Phe Ser Val Ala Cys Ser Leu Leu Ala Ala
178          -20          -15          -10
181 Ala Leu Leu Pro Gly Pro Arg Glu Ala Pro Ala Ala Ala Ala Phe
182          -5          -1 1          5
185 Glu Ser Gly Leu Asp Leu Ser Asp Ala Glu Pro Asp Ala Gly Glu Ala
186 10          15          20          25
189 Thr Ala Tyr Ala Ser Lys Asp Leu Glu Glu Gln Leu Arg Ser Val Ser
190          30          35          40
193 Ser Val Asp Glu Leu Met Thr Val Leu Tyr Pro Glu Tyr Trp Lys Met
194          45          50          55
197 Tyr Lys Cys Gln Leu Arg Lys Gly Gly Trp Gln His Asn Arg Glu Gln
198          60          65          70
201 Ala Asn Leu Asn Ser Arg Thr Glu Glu Thr Ile Lys Phe Ala Ala Ala
202          75          80          85
205 His Tyr Asn Thr Glu Ile Leu Lys Ser Ile Asp Asn Glu Trp Arg Lys
206 90          95          100          105
209 Thr Gln Cys Met Pro Arg Glu Val Cys Ile Asp Val Gly Lys Glu Phe
210          110          115          120
213 Gly Val Ala Thr Asn Thr Phe Phe Lys Pro Pro Cys Val Ser Val Tyr
214          125          130          135
217 Arg Cys Gly Gly Cys Cys Asn Ser Glu Gly Leu Gln Cys Met Asn Thr
218          140          145          150

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```

221 Ser Thr Ser Tyr Leu Ser Lys Thr Leu Phe Glu Ile Thr Val Pro Leu
222      155      160      165
225 Ser Gln Gly Pro Lys Pro Val Thr Ile Ser Phe Ala Asn His Thr Ser
226 170      175      180      185
229 Cys Arg Cys Met Ser Lys Leu Asp Val Tyr Arg Gln Val His Ser Ile
230      190      195      200
233 Ile Arg Arg Ser Leu Pro Ala Thr Leu Pro Gln Cys Gln Ala Ala Asn
234      205      210      215
237 Lys Thr Cys Pro Thr Asn Tyr Met Trp Asn Asn His Ile Cys Arg Cys
238      220      225      230
241 Leu Ala Gln Glu Asp Phe Met Phe Ser Ser Asp Ala Gly Asp Asp Ser
242      235      240      245
245 Thr Asp Gly Phe His Asp Ile Cys Gly Pro Asn Lys Glu Leu Asp Glu
246 250      255      260      265
249 Glu Thr Cys Gln Cys Val Cys Arg Ala Gly Leu Arg Pro Ala Ser Cys
250      270      275      280
253 Gly Pro His Lys Glu Leu Asp Arg Asn Ser Cys Gln Cys Val Cys Lys
254      285      290      295
257 Asn Lys Leu Phe Pro Ser Gln Cys Gly Ala Asn Arg Glu Phe Asp Glu
258      300      305      310
261 Asn Thr Cys Gln Cys Val Cys Lys Arg Thr Cys Pro Arg Asn Gln Pro
262      315      320      325
265 Leu Asn Pro Gly Lys Cys Ala Cys Glu Cys Thr Glu Ser Pro Gln Lys
266 330      335      340      345
269 Cys Leu Leu Lys Gly Lys Lys Phe His His Gln Thr Cys Ser Cys Tyr
270      350      355      360
273 Arg Arg Pro Cys Thr Asn Arg Gln Lys Ala Cys Glu Pro Gly Phe Ser
274      365      370      375
277 Tyr Ser Glu Glu Val Cys Arg Cys Val Pro Ser Tyr Trp Gln Arg Pro
278      380      385      390
281 Gln Met Ser
282      395
285 <210> SEQ ID NO: 3
286 <211> LENGTH: 1526
287 <212> TYPE: DNA
288 <213> ORGANISM: homo sapiens
290 <400> SEQUENCE: 3
291 cgaggccacg gcttatgcaa gcaaagatct ggaggagcag ttacggtctg tgtccagtgt      60
293 agatgaactc atgactgtac tctaccaga atattgaaa atgtacaagt gtcagctaag      120
295 gaaaggaggc tggcaacata acagagaaca ggccaacctc aactcaagga cagaagagac      180
297 tataaaattt gctgcagcac attataatac agagatcttg aaaagtattg ataatgagtg      240
299 gagaaagact caatgcacgc cacgggaggt gtgtatagat gtggggaagg agtttgaggt      300
301 cgcgacaaac accttcttta aacctccatg tgtgtccgtc tacagatgtg ggggttgctg      360
303 caatagttag gggctgcagt gcatgaacac cagcacgagc tacctcagca agacgttatt      420
305 tgaaattaca gtgcctctct ctcaaggccc caaaccagta acaatcagtt ttgccaatca      480
307 cacttctctg cgatgcacgt ctaaactgga tgtttacaga caagttcatt ccattattag      540
309 acgttccctg ccagcaacac taccacagtg tcaggcagcg aacaagacct gccccaccaa      600
311 ttacatgttg aataatcaca tctgcagatg cctggctcag gaagatttta tgttttctc      660
313 ggatgctgga gatgaactca cagatggatt ccatgacatc tgtggacca acaaggagct      720

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315 ggatgaagag acctgtcagt gtgtctgcag agcggggcctt cggcctgcc a gctgtggacc 780
317 ccacaaagaa ctagacagaa actcatgcc a gtgtgtctgt aaaaacaaac tcttccccag 840
319 ccaatgtggg gccaacgcag aatttgatga aaacacatgc cagtgtgtat gtaaaagaac 900
321 ctgccccaga aatcaacccc taaatcctgg aaaatgtgcc tgtgaatgta cagaaagtcc 960
323 acagaaatgc ttgttaaaag gaaagaagtt ccaccacca a catgcagct gttacagacg 1020
325 gccatgtacg aaccgccaga aggcttctga gccaggattt tcatatagtg aagaagtgtg 1080
327 tcgttgtgtc ctttcatatt ggcaaagacc acaaatgagc taagattgta ctgttttcca 1140
329 gttcatcgat tttctattat ggaaaactgt gttgccacag tagaactgtc tgtgaacaga 1200
331 gagacccttg tgggtccatg ctaacaaaga caaaagctcg tctttcctga accatgtgga 1260
333 taactttaca gaaatggact ggagctcatc tgcaaaaggc ctcttgtaaa gactgggttt 1320
335 ctgccaatga ccaaacagcc aagattttcc tcttctgatt tctttaaaag aatgactata 1380
337 taattttatt ccaactaaaa tattgtttct gcattcatct ttatagcaac aacaattggt 1440
339 aaaactcact gtgatcaata tttttatatt atgcaaaata tgtttaaaat aaaatgaaaa 1500
341 ttgtatttat aaaaaaaaaa aaaaaa 1526
344 <210> SEQ ID NO: 4
345 <211> LENGTH: 350
346 <212> TYPE: PRT
347 <213> ORGANISM: homo sapiens
349 <400> SEQUENCE: 4
351 Met Thr Val Leu Tyr Pro Glu Tyr Trp Lys Met Tyr Lys Cys Gln Leu
352 1 5 10 15
354 Arg Lys Gly Gly Trp Gln His Asn Arg Glu Gln Ala Asn Leu Asn Ser
355 20 25 30
357 Arg Thr Glu Thr Ile Lys Phe Ala Ala Ala His Tyr Asn Thr Glu
358 35 40 45
360 Ile Leu Lys Ser Ile Asp Asn Glu Trp Arg Lys Thr Gln Cys Met Pro
361 50 55 60
363 Arg Glu Val Cys Ile Asp Val Gly Lys Glu Phe Gly Val Ala Thr Asn
364 65 70 75 80
366 Thr Phe Phe Lys Pro Pro Cys Val Ser Val Tyr Arg Cys Gly Gly Cys
367 85 90 95
369 Cys Asn Ser Glu Gly Leu Gln Cys Met Asn Thr Ser Thr Ser Tyr Leu
370 100 105 110
372 Ser Lys Thr Leu Phe Glu Ile Thr Val Pro Leu Ser Gln Gly Pro Lys
373 115 120 125
375 Pro Val Thr Ile Ser Phe Ala Asn His Thr Ser Cys Arg Cys Met Ser
376 130 135 140
378 Lys Leu Asp Val Tyr Arg Gln Val His Ser Ile Ile Arg Arg Ser Leu
379 145 150 155 160
381 Pro Ala Thr Leu Pro Gln Cys Gln Ala Ala Asn Lys Thr Cys Pro Thr
382 165 170 175
384 Asn Tyr Met Trp Asn Asn His Ile Cys Arg Cys Leu Ala Gln Glu Asp
385 180 185 190
387 Phe Met Phe Ser Ser Asp Ala Gly Asp Asp Ser Thr Asp Gly Phe His
388 195 200 205
390 Asp Ile Cys Gly Pro Asn Lys Glu Leu Asp Glu Glu Thr Cys Gln Cys
391 210 215 220
393 Val Cys Arg Ala Gly Leu Arg Pro Ala Ser Cys Gly Pro His Lys Glu
394 225 230 235 240

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fyI

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

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L:612 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8